

IN THE CLAIMS

1. (Currently amended) A method of accelerating the operation of a load balancer by an accelerator switch, comprising:

receiving, by the accelerator switch, packets directed to the load balancer, the load balancer being configured to operate in a first mode and a second mode, wherein the load balancer operating in the first mode changes at least one of a destination IP address and a destination port of one or more packets it forwards and the load balancer operating in the second mode changes at least a source IP address and a destination IP address of one or more packets it forwards;

determining, for at least one of the received packets, whether the packets match an entry of a list of packet groups, by comparing fewer than five packet parameters ~~of the packets that are not changed by the load balancer~~ to respective fields of entries of the list; and

forwarding, by the accelerator switch, at least one of the received packets, directly to its destination, responsive to the determining.

2. (Original) A method according to claim 1, wherein determining whether the packets match an entry of the list comprises comparing three or fewer parameters of the packets to respective fields in the list.

3. (Currently amended) A method according to claim 2, wherein determining whether the packets match an entry of the list comprises comparing two parameters of the packets to a respective field in the list.

4. (Currently amended) A method according to claim 2, wherein determining whether the packets match an entry of the list comprises comparing a single parameter of the packets to a respective field in the list.

5. (Original) A method according to claim 1, wherein receiving packets directed to the load balancer comprises receiving packets directed from a client to a Web site associated with the load balancer and forwarding at least one of the received packets directly to its destination comprises

forwarding the packets from the clients to one of the servers of the Web site without passing through the load balancer.

6. (Original) A method according to claim 5, wherein determining whether the packets match an entry of the list comprises comparing the source IP address and source port of the packets to respective fields in the list.

7. (Original) A method according to claim 5, wherein the compared parameters do not include a destination address.

8. (Original) A method according to claim 1, wherein receiving packets directed to the load balancer comprises receiving packets directed from a server to a client and forwarding at least one of the received packets directly to its destination comprises forwarding the packets from the server to the client without passing through the load balancer.

9. (Currently amended) A method according to claim 8, wherein determining whether the packets match an entry of the list comprises comparing the ~~destination IP address and~~ destination port of the packets to respective fields in the list.

10. (Original) A method according to claim 8, wherein the compared parameters do not include a source address.

11. (Original) A method according to claim 1, wherein forwarding at least one of the received packets comprises forwarding packets for which a matching entry was found.

12. (Original) A method according to claim 1, wherein the load balancer operates in half NAT or full NAT mode.

13. (Currently amended) A method of creating an entry in a list which correlates between packet groups and respective destination servers, comprising:

receiving, by an accelerator, a packet directed from or to a load balancer ~~which changes at least the destination IP address of packets it forwards to servers,~~ the load balancer being configured to operate in a first mode and a second mode, wherein the load balancer operating in the first mode changes at least one of a destination IP address and a destination port of one or more packets it forwards and the load balancer operating in the second mode changes at least a source IP address and a destination IP address of one or more packets it forwards; and

creating, by the accelerator, an entry comprising parameters not changed by the load balancer in the list of destination servers, responsive to the received packet.

14. (Original) A method according to claim 13, wherein creating the entry comprises creating an entry which does not include a destination address of a Web site.

15. (Original) A method according to claim 13, wherein the packet is directed from or to a load balancer operating in a half NAT mode.

16. (Original) A method according to claim 13, wherein the packet is directed from or to a load balancer operating in a full NAT mode.

17. (Original) A method according to claim 13, wherein receiving the packet comprises receiving a packet directed from the load balancer to a server.

18. (Original) A method according to claim 13, wherein receiving the packet comprises receiving a packet directed from a server to the load balancer.

19. (Currently amended) A method according to claim 13, wherein creating the entry comprises creating the entry using ~~substantially~~ only information in the received packet as it was received.

20. (Original) A method according to claim 13, wherein creating the entry comprises creating the entry using information not included in the received packet as it was received.

21. (Original) A method according to claim 20, wherein creating the entry comprises creating the entry using information from a copy of the received packet, previously received by the accelerator.

22. (Original) A method according to claim 21, wherein receiving the packet comprises receiving a packet from the load balancer and creating the entry comprises creating the entry using information from the received packet and from a copy of the received packet forwarded to the load balancer.

23. (Currently amended) A method according to claim 13, further comprising receiving, by the accelerator, a packet directed from or to an additional load balancer and creating, by the accelerator, an entry in the list of destination servers, responsive to the ~~received~~ packet directed from or to the additional load balancer.

24. (Currently amended) A method according to claim 13, further comprising:
receiving, by the accelerator, packets directed to a Web site handled by the load balancer;
storing identification information and values of one or more parameters of the packets directed to the Web site, in a temporary storage; and

searching the temporary storage for an entry which matches ~~the received~~ a packet directed from the load balancer,

wherein creating the entry in the list of destination servers of packet groups is performed only if a match is found.

25. (Original) A method according to claim 24, wherein storing the identification information comprises storing a unique identification number tagged to the packet by the accelerator.

26. (Original) A method according to claim 24, wherein storing the identification information comprises storing at least one of the sequence and acknowledge fields of TCP packets.

27. (Original) A method according to claim 26, wherein storing the identification information comprises storing a leading segment of the payload of the packet.

28. (Original) A load balancing accelerator, comprising:
an input interface which receives packets directed to a load balancer;
a table which lists packet groups and their respective destination servers, the table having physical entries which can accommodate different field sets for storage of data entries;
a comparator which compares at least one of the packets directed to the load balancer to one or more of the data entries of the table;
a forwarding unit which forwards at least one of the packets for which a match was found by the comparator, directly to a server, responsive to the contents of the matching data entry; and
a controller which determines in which field set, from the plurality of different field sets, each of the data entries of the table is stored.

29. (Original) An accelerator according to claim 28, wherein the controller comprises a user interface through which a user may configure the field sets in which the data entries of the table are stored.

30. (Original) An accelerator according to claim 28, wherein the controller automatically determines the field sets in which the data entries are stored.

31. (Original) An accelerator according to claim 30, wherein the controller transmits one or more packets to the load balancer and examines the response of the load balancer to determine the field sets in which the data entries are stored.

32. (Original) An accelerator according to claim 28, wherein the controller determines the field sets in which the data entries of the table are stored, such that at a single time all the data entries of the table are stored in the same field sets.

33. (Original) An accelerator according to claim 28, wherein the controller determines the field sets in which the data entries of the table are stored, such that at least during some periods of operation of the accelerator, the table includes at least two data entries stored in different field sets.

34. (Original) An accelerator according to claim 28, wherein at least one of the physical entries of the table can be configured for use with different field sets.

35. (Original) An accelerator according to claim 28, wherein the table comprises a plurality of sub-tables with physical entries having different field sets.

36. (Original) An accelerator according to claim 28, wherein the input interface receives packets directed to a plurality of load balancers and wherein the data entries corresponding to a first load balancer are stored in a first set of fields and data entries corresponding to a second load balancer are stored in a second set of fields different from the first set of fields.

37. (Original) A load balancing accelerator, comprising:
an input interface which receives packets directed to a load balancer;
a table which lists packet groups and their respective destination servers;
a comparator which compares at least one of the packets directed to the load balancer to at least one of the entries of the table;
a forwarding unit which forwards directly to a server, at least one of the packets for which a match was found by the comparator, responsive to the contents of the matching entry, the forwarding unit being capable of operating in a plurality of operation modes, at least one of the operation modes including changing at least one of the fields of the forwarded packets; and
a controller which determines in which mode the forwarding unit operates.

38. (Original) An accelerator according to claim 37, wherein the forwarding unit is capable of performing splicing.

39. (Original) An accelerator according to claim 37, wherein the controller determines the operation mode of the forwarding unit based on a user configuration.

40. (Original) An accelerator according to claim 37, wherein the controller determines the operation mode of the forwarding unit based on the contents of packets directed from or to the load balancer.

41. (Original) An accelerator according to claim 37, wherein the controller determines the operation mode of the forwarding unit by comparing the contents of packets from the load balancer with packets directed to the load balancer.